

## ABSTRACT

Communication between a stationary terminal such as an on-road terminal and a mobile terminal mounted on an automotive vehicle is performed under an OFDM system. Before transmitting data signals from the mobile terminal to the stationary terminal, a control signal indicating the number of sub-carriers used in the data transmission is sent to the stationary terminal. The number of sub-carriers is decreased in accordance with increase of the moving speed to avoid deterioration in communication quality due to the moving speed increase. A modification formula and/or an error-correction-code coding rate used in the data transmission may be varied according to the moving speed in place of or together with varying the number of sub-carriers.